

Appendix J

Statement of Consideration

**STATEMENT OF CONSIDERATION
RELATING TO SIP REVISION FOR THE LOUISVILLE AREA REDESIGNATION TO
ATTAINMENT
FOR 8-HOUR OZONE
Amended After Comments**

Environmental and Public Protection Cabinet

Department for Environmental Protection
Division for Air Quality

- (1) A public hearing on the State Implementation Plan (SIP) revision for redesignation of the Kentucky portion of the Louisville KY-IN MSA 8-Hour Ozone Nonattainment Area to attainment for the 8-hour ozone standard was held on July 19, 2006, at 10:00 a.m. The hearing was held at the offices of the Louisville Metro Air Pollution Control District, 850 Barret Avenue, Louisville, Kentucky. Written and oral comments were received during the public comment period.
- (2) The following individuals attended and/or provided written and/or oral comments:

Name and Title

Robert Ukeiley
Tom FitzGerald

Jenny Macdonald

Sarah Lynn Cunningham
Wallace McMullen

Kay T. Prince

Organization

Law Office, Berea, KY
Kentucky Resources Council, Inc.,
Frankfort, KY
Kentucky Resources Council, Inc.,
Frankfort, KY
Louisville, KY
Greater Louisville Sierra Club,
Louisville, KY
USEPA, Region IV
Atlanta, GA

- (3) The following individuals from the Kentucky Environmental and Public Protection Cabinet attended the public hearing and drafted responses to comments received during the public review period:

Lona Brewer, Environmental Branch Manager	Division for Air Quality
John Gowins, Environmental Control Supervisor*	Division for Air Quality
Susan Weaver, Environmental Technologist III	Division for Air Quality
John S. Lyons, Director	Division for Air Quality

* Agency moderator

Response to Comments on the proposed revision to the State Implementation Plan (SIP) to redesignate the Kentucky portion of the Louisville-Boyd County as attainment for the National Ambient Air Quality Standard (NAAQS) for ozone.

1. **Comment:** It is clear that the reason that Oldham County has a design value below 0.085 for 2002-2005 is simply because of the usually wet and cool summer in 2004.
Robert Ukeiley, law office, Berea, KY

Response: The Cabinet does not agree. While weather normally fluctuates each year, becoming cooler or warmer, or more wet or more dry, than the previous year, the overall averaging of ambient data across three years is to lessen the impact of any one-year aberration in the data. Overall reductions in the ozone precursor emissions, which are permanent and enforceable have been documented. The weather will continue to fluctuate however, this agency is committed to the mitigating the impact of ozone-forming precursors and maintaining the attainment of the National Ambient Air Quality Standard (NAAQS).

2. **Comment:** Last year, 2005, saw a 4th highest ozone value of 0.089 in Oldham County and there is no reason to think that this will not continue in 2006 and beyond
Robert Ukeiley, law office, Berea, KY

Response: The Cabinet does not agree. The 8-Hour Ozone NAAQS uses the fourth high maximum reading for each year averaged over a 3-year period. Making an assumption that the standard will be violated based on the assumption that previous monitoring levels are constant is contrary to the standard itself.

3. **Comment:** Global warming means that ozone levels will increase over time.
Robert Ukeiley, law office, Berea, KY

Response: The Cabinet acknowledges this comment. However global warming and the related international and federal policies are outside the scope of this proposed SIP revision.

4. **Comment:** EPA is currently on a court ordered schedule to revise the ozone NAAQS. It is not an appropriate use of DAQ's limited resources to spend time re-designating an area that will likely be designated non-attainment for the new standard before or shortly after re-designation to attainment is finalized.
Robert Ukeiley, law office, Berea, KY

Response: The Cabinet does not agree. USEPA is required to review all NAAQS every five years. Sometimes this process gets diverted into the court system and delays will occur. However, this review process is on-going and separate from the states' attempts to manage air quality issues under the current requirements issued by USEPA.

5. **Comment:** If EPA follows CARB's lead with its revised ozone NAAQS all three counties will still have a design value above the new NAAQS.
Robert Ukeiley, law office, Berea, KY

Response: The Cabinet acknowledges this comment; however it involves speculation as to what EPA may do in the future. As stated in response 2 above, We currently have three years of ambient data meeting the NAAQS, and have documented permanent and enforceable reductions to ozone precursors, thus the obligation is now to present this information to the U.S. EPA and ask for the designation status of the area to reflect the current data trends.

6. **Comment:** Based on the ambient monitoring data for the 7 monitoring stations over the 2002-2005 period, the calculated values for each monitor are below the National Ambient Air Quality Standard of .085 ppm, demonstrating attainment of the 8-hour regulatory standard.
Tom FitzGerald, Jenny Macdonald, Kentucky Resources Council, Inc.

Response: The Cabinet concurs with this comment.

7. **Comment:** KRC acknowledges that the attainment of the standard is in part due to local and regional reductions in emission of ozone precursors, although the District is correct in stating that the overall favorable pattern of weather conditions also contributed to lower levels of ozone formation during the 2002-2005 period.
Tom FitzGerald, Jenny Macdonald, Kentucky Resources Council, Inc.

Response: The Cabinet concurs with this comment.

8. **Comment:** Attainment of the current regulatory standard is a step towards protection of public health, but is not an appropriate endpoint, since there is a substantial body of evidence indicating that adverse health effects occur from exposure to ozone at concentrations and for the durations at and below those allowed by the current standard.
Tom FitzGerald, Jenny Macdonald, Kentucky Resources Council, Inc.

Response: The Cabinet concurs in part. The 8-hour ozone standard is more than a step towards public protection; it is the legal standard in place that states are required to meet. It is more protective of public health and more stringent than the previous 1-hour ozone standard. If at some future point in time U.S. EPA promulgates a new more stringent standard to address public health issues, the Cabinet will respond appropriately.

9. **Comment:** The regulatory approach in the current NAAQS allows the District and Commonwealth to use the 4th highest value in demonstrating attainment of the standard, so that exceedances of the standard that may have occurred (and which in fact did occur during the 2002-2005 period at several of the monitors) are ignored.
Tom FitzGerald, Jenny Macdonald, Kentucky Resources Council, Inc.

Response: The Cabinet agrees with the comment regarding the regulatory approach,

however the Cabinet disagrees that the exceedances are ignored. An exceedance of the standard is not a violation of the standard. The monitored values are considered in accordance with EPA requirements. The overall averaging of ambient data across three years and the use of the 4th highest monitor reading is to lessen the impact of any aberration of weather or local circumstances on the data.

- 10. Comment:** The Health Effects Committee of the Louisville Metro Air Quality Task Force acknowledged that additional reductions below the current regulatory standard are both necessary and advisable to provide the required margin of safety that allows for and compensates for scientific uncertainty, as well as the lack of precise predictions regarding the health impacts of air pollutants on a multiplicity of potentially susceptible subpopulations.
Tom FitzGerald, Jenny Macdonald, Kentucky Resources Council, Inc.

Response: The Cabinet acknowledges this comment; however the Division for Air Quality's mission statement is to achieve and maintain the NAAQS, which are designed to protect the health and welfare of the nation. We currently have three years of ambient data meeting the NAAQS, and have documented permanent and enforceable reductions to ozone precursors, thus the obligation is now to present this information to the U.S. EPA and ask for the designation status of the area to reflect the current data trends.

- 11. Comment:** The Task Force recommended that the District Board establish an ongoing and continuous process of review of sources of ozone precursor emissions from all sectors of the economy, and develop and implement policies, practices and standards in order to continue progress towards reduction in ambient concentrations of ozone and precursor pollutants in order to protect public health with an adequate margin of safety.
Tom FitzGerald, Jenny Macdonald, Kentucky Resources Council, Inc.

Response: The Cabinet acknowledges this comment.

- 12. Comment:** KRC encourages the Louisville Metro Air Pollution Control District to move forward with the effort to achieve additional reductions below the current regulatory standard, and applauds the recognition by the District Board that attainment of the 8-hour standard is a step towards clean air in Louisville, but is not an appropriate endpoint in protection of public health from ozone exposure.
Tom FitzGerald, Jenny Macdonald, Kentucky Resources Council, Inc.

Response: The Cabinet acknowledges this comment.

- 13. Comment:** As an asthmatic, I must significantly restrict my work and recreational activities during Air Quality Alert days. Evidently, I need my governments to do more than rely upon the weather and federal minimums to protect my health.
Sarah Lynn Cunningham, P.E. Kentucky Resources Council, Inc.

Response: The Cabinet does not agree. As stated above this agency was able to document air quality that meets the NAAQS for ozone; and overall reductions in the

ozone precursors that are permanent and enforceable. The weather will continue to fluctuate into the future, but this agency is committed to mitigating the impact of ozone-forming precursors and maintaining the National Ambient Air Quality Standard (NAAQS). The mere fact that the commenter is aware of Air Quality Alert days speaks to the tremendous amount of outreach being performed on local, state and national levels to alert those sectors of the population who are most sensitive to this pollutant.

- 14. Comment:** Only one of the graphs in this document properly starts its y-axis at zero. If one didn't look closely, one could easily, but inaccurately, conclude that air pollution will come close to ending.

Sarah Lynn Cunningham, P.E. Kentucky Resources Council, Inc.

Response: The Cabinet does not agree. The formats of the graphs presented in this document were done in order to provide visual examples of the data described in the narrative and tables. Axis endpoints were utilized that were meaningful and did not waste space.

- 15. Comment:** Graph 1 unnecessarily visually eliminates nearly 88% of the pollution it's supposed to depict.

Sarah Lynn Cunningham, P.E. Kentucky Resources Council, Inc.

Response: The Cabinet does not agree. Graph 1 compares average rainfall and average temperature over the years 2000 to 2005. It does not depict pollution.

- 16. Comment:** It is misleading to discuss tailpipe emissions in 2002-2005 in Jefferson County without mentioning the shut down of its pioneering inspection and maintenance (VET) program.

Sarah Lynn Cunningham, P.E. Kentucky Resources Council, Inc.

Response: The Cabinet does not agree. The VET program was legislatively mandated to end November 1, 2003. The years used to show attainment of the standard were 2003, 2004, and 2005. There were at least two years without the program used in determining attainment. Further, the VET was not included in any of the mobile model runs that projected emissions into the future.

- 17. Comment:** Our local VMT continues to grow exponentially, and should be acknowledged in the summary report.

Sarah Lynn Cunningham, P.E. Kentucky Resources Council, Inc.

Response: The Cabinet acknowledges this comment. The VMT are included in Appendix E.

- 18. Comment:** The report fails to acknowledge that the EPA long ago ceased enforcement of the Corporate Average Fuel Efficiency (CAFE) standards or that most new vehicle

purchased fall into the light truck category which is still not required to meet the more efficient CAFE or lower emissions standards imposed on passenger cars.

Sarah Lynn Cunningham, P.E. Kentucky Resources Council, Inc.

Response: The Cabinet acknowledges this comment, however it appears to be beyond the scope of this proposed SIP revision.

- 19. Comment:** How can extended warranties on emission control devices count toward the SIP when—without a VET program—very few motorists would ever discover that their automobile’s emission control devices had failed, much less invoke their extended warranties?

Sarah Lynn Cunningham, P.E. Kentucky Resources Council, Inc.

Response: The Cabinet acknowledges this comment. The purpose for the requirement to extend the warranties on emission control devices was to encourage owners to have the equipment repaired/replaced in the event of failure. The extension of the warranty increases the likelihood that the owner will take the vehicle in for the repair if it is covered under a warranty. The MOBILE 6.2 model takes this into consideration when generating emission factors.

- 20. Comment:** The discussion on page 8 refers to federal legislation commonly called the “2007 Highway Rule.” Its fuel standards only began this summer. The engine rules don’t begin until the 2007 model year. Because diesel engines are typically driven 15-20 years before being finally retired, the full impact of this rule could easily until [sic] 2027—much longer than implied.

Sarah Lynn Cunningham, P.E. Kentucky Resources Council, Inc.

Response: The Cabinet acknowledges this comment. The draft SIP revision references “Heavy Duty Engine, Vehicle and Fuel Standards.” This was a two-phase program implemented by EPA. The first phase required a 50% reduction in emissions of NOx from 2004 highway diesel engines and set new emissions standards for heavy-duty gasoline-fueled engines and vehicles for 2005. The second phase established the lower sulfur content requirements that for gasoline began in June 2006, followed by heavy-duty diesel engine requirements due in 2007. Additional language has been added to the narrative to clarify these phases of the rule.

- 21. Comment:** UPS recently announced that it will soon begin a billion-dollar-plus expansion of its Louisville sorting hub. When finished, significantly more large planes will be landing and taking off daily. Does this report include those additional emissions?

Sarah Lynn Cunningham, P.E. Kentucky Resources Council, Inc.

Response: The Cabinet acknowledges this comment. There are no emissions attributed to the UPS expansion at the airport in the inventories, however airport emissions were generated and projected using the EPA approved Emissions and Dispersion Modeling System (EDMS) model.

22. **Comment:** Models are predicated on design assumptions. It is my understanding that the models used to calculate auto emissions assume that all drivers are minding the speed limit. In reality, the norm is to exceed the limit by 5-15 mph. Particularly at highway speeds, excessive speed decreases fuel efficiency and increases emission rates. If the models cannot reflect reality, the report should at least acknowledge that flaw in the model.

Sarah Lynn Cunningham, P.E. Kentucky Resources Council, Inc.

Response: The Cabinet does not agree. As explained in Appendix D, the Kentucky Transportation Cabinet provides road classifications, Daily Vehicle Miles Traveled (DVMT) per road classification per county, and estimated average speeds for each road classification for Bullitt and Oldham Counties utilizing the Highway Performance Monitoring System (HPMS). For Jefferson County, KIPDA maintains a travel demand model (TDM) to estimate transportation system capacities, speeds, and DVMT in the five counties surrounding Louisville. This is the data that is used in running the Mobile model for onroad vehicle emissions.

23. **Comment:** It is ironic that the biggest part of the reductions in VOCs and NO_x shown in the SIP tables come from motor vehicles, even though automobile emissions testing has been discontinued, and Louisville and the Commonwealth of Kentucky are doing little to reduce on-road motor vehicle air emissions.

Wallace McMullen, Greater Louisville Sierra Club

Response: The Cabinet does not agree. As stated in the SIP revision, in 2004 the Tier 2 Vehicle Emissions and Fuel Standards federal requirement began to be phased in, which required a single set of federal tailpipe emission standards the apply to all passenger cars, light trucks, and larger passenger vehicles. In addition, the sulfur content of gasoline was required to be significantly reduced by 2006. These reductions have been quantified in the highway mobile model runs. Additionally, in determining that the proper inputs were used in the model, it was discovered that the Indiana request to redesignate Floyd and Clark Counties included a new 2003 regional mobile transportation conformity budget and that there was an error in the total emissions table of 0.72 tons per day. Since transportation planning is done on a regional basis, the same budget must be used for the entire region, which includes those portions in Kentucky as well as Indiana. Therefore, Kentucky's stated transportation conformity budget has been lowered and now reflects a 2003 conformity budget of 40.97 tons per day VOC and 95.51 tons per day NO_x and the emissions numbers have be corrected.

24. **Comment:** The SIP document shows large reductions in this category of mobile source air emissions, with the reductions projected to come entirely from old cars disappearing from the roads and Federal regulations taking effect.

Wallace McMullen, Greater Louisville Sierra Club

Response: The Cabinet acknowledges this comment. Fleet turnover is a recognized phenomenon that reduces emissions due to the replacement of older, less efficient

vehicles with newer, more efficient vehicles. Previous responses above have discussed the federal programs that reduce emissions from vehicles.

25. **Comment:** The tables in the SIP project optimistic looking permanent emission reductions, however it is easy for citizens to wonder if these nice numbers are going to translate into real improvements in air quality.
Wallace McMullen, Greater Louisville Sierra Club

Response: The Cabinet acknowledges this comment. The projected emissions were calculated using approved methodology, and demonstrates maintenance of the emissions level that allowed for attainment of the standard through the year 2020.

26. **Comment:** We will be happy if the projected low emissions come true. We will celebrate clean air no matter how it comes about.
Wallace McMullen, Greater Louisville Sierra Club

Response: The Cabinet concurs with this statement.

27. **Comment:** We note that the maintenance plan section of the SIP has some desirable provisions such as the requirement for Best Available Control Technology (BACT), Prevention of Significant Deterioration (PSD), and the maintenance of inspections in Jefferson County.
Wallace McMullen, Greater Louisville Sierra Club

Response: The Cabinet concurs with this statement.

28. **Comment:** The provision that none of the contingency measures should be implemented for 18 months after establishing the need for more measures in unacceptable. The SIP should require these corrective measures to be implemented as fast as reasonably possible when needed.
Wallace McMullen, Greater Louisville Sierra Club

Response: The Cabinet agrees in part. The language in the redesignation request states that the appropriate contingency measures will be implemented no later than 18 months after a monitored violation. The review, analysis, and determination of appropriate control measures can be implemented sooner at a local level than at a state level. Additionally that time frame also takes into account time for public review and response by the public as well as review of state regulations by committees of the General Assembly. The implementation will occur as quickly as reasonably possible, but will be completed no longer than 18 months after a monitored violation.

29. **Comment:** I remain opposed to any form of implementation of a vehicle emission testing/inspection program. I believe that our air quality has actually been better since we eliminated the old VET program. Automobiles are of a new breed now and testing only dumps more junk in the air as 98% of cars will pass an exam.
Don Warwick

Response: The Cabinet acknowledges this comment, however it appears to be beyond the scope of this SIP revision.

- 30. Comment:** Please clarify temperatures on page 27 and 28 of the submittal what temperatures were used for the MOBILE6.2 model runs. It is our understanding that Jefferson County has different temperatures than Bullitt and Oldham counties. These temperatures must be used by the transportation partners for conformity determination so this clarification is necessary.

Kay T. Prince, USEPA

Response: The Cabinet acknowledges this comment. The temperature data used in developing the mobile emissions budgets was included in Appendix D. However, in order to ensure a review of the applicable appendices documentation is unnecessary, the temperatures used have now been included in the narrative.

- 31. Comment:** EPA suggests a summary of the total reductions that occurred and resulted in the attainment of the 8-hr ozone NAAQS should be included in the main body of the SIP in the Permanent and Enforceable Reductions section. Details could still be referenced in the appendices.

Kay T. Prince, USEPA

Response: The Cabinet acknowledges this comment, however the Cabinet feels that the level of detail regarding permanent and enforceable reductions contained in the appendices is sufficient.

- 32. Comment:** The final submittal should also indicate that the Commonwealth will work with the Indiana Environmental Agency in maintaining the 8-hr NAAQS and in correcting any future violations because this is an interstate nonattainment area.

Kay T. Prince, USEPA

Response: The Cabinet acknowledges this comment, however it appears unnecessary. As duly pointed out, this is a multistate area and has been for numerous years. Kentucky will continue to work with adjacent states to research the best means of addressing air quality issues. Within this document the Cabinet will commit to addressing appropriate issues over which it has primacy in this interstate area.